

From: [Robert Pyke](#)
To: [Delta Plan Comments@Deltacouncil](#)
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Subject: Pyke Comments on NOP for EIR
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Attachments: [Pyke Remarks on Delta Plan EIR.pdf](#)

I am attaching an electronic version of my comments along with the referenced Op-Ed from the Stockton Record.

Regards,

Robert Pyke

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**Remarks of Robert Pyke, Ph.D., G.E., prepared for the Delta Plan EIR
Scoping Meeting, Stockton CA, January 25, 2011**

My name is Robert Pyke. I have two comments about the Notice of Preparation and the scope of the EIR, plus a comment about the necessity to prepare an EIR in the first place.

I am a civil engineer specializing in geotechnical, earthquake and water resources engineering, but as part of my Ph.D. studies in civil engineering at the University of California I also completed a minor in environmental planning under the guidance of Professor Robert Twiss.

I have worked for almost 30 years on various problems in the Delta starting with a forensic investigation of the 1982 flooding of McDonald Island, and I am currently a member of the Board of Senior Consultants for the ongoing Reclamation District 17 levee improvements. I might also note that I was an expert witness for the plaintiffs in the now famous Paterno case, which confirmed the State's liability resulting from levee failures in cases where the State has been uneven in its performance.

My first comment has to do with the Improved Water Conveyance and Storage Element of the proposed Delta Plan and the EIR.

On November 15 I e-mailed the following comment on the then draft NOP to the Council:

“In view of the controversy surrounding BDCP, the likelihood that it will not come together in time for inclusion in the Delta Plan, and the near certainty that it will not meet the statutory requirements for inclusion in the Delta Plan, should not the first bullet (bottom of p.18) [which at that time read *prompt implementation of the BDCP program if the program complies with Water Code section 85320*] be rewritten as:

Prompt implementation of the BDCP if it complies with Water Code Section 85320 and/or alternatives designed to accomplish improvements in water conveyance and storage consistent with the co-equal goals of the Delta Reform Act.

This would allow for inclusion of the BDCP in the Delta Plan should lightning strike, but would also allow for alternate plans for improved conveyance.” Although my comment was posted on the Council web site, apparently it was the collective wisdom of the Council, its staff and consultants, not to change the wording in the NOP.

As it turns out my comment was somewhat prophetic as it has come to pass that the BDCP will not be completed, even in draft form, before the end of this year, if then. In many ways this is fortunate, because now, instead of the cart being before the horse, the horse is properly ahead of the cart, or at least the horse has an opportunity to get ahead of the cart. As suggested by Richard Roos-Collins at the California Water Law Symposium on Saturday, the Delta Council now has the opportunity to set forth in the Delta Plan its own guidelines or rules for improved water conveyance and storage and the BDCP, or its successor, will then be obliged to be consistent with those guidelines or rules.

However, the NOP has no bullet to describe this task and the Water Resources White Paper, as far as I can see, did not even address water conveyance through the Delta. Although there will be other important aspects to the Delta Plan, there is no aspect that is more important than this because getting conveyance right is also the key to making a meaningful start on ecosystem restoration.

In that respect I would draw your attention to my recent Op-Ed in the Stockton Record. In that piece I point out that there are two keys to meeting the co-equal goals of the Council: The first is the need to recognize that man-made alteration of the Delta, in combination with larger export flows, has turned the Delta from an estuarine environment into a weedy lake which favors invasive species over native species; and the second is to recognize that precipitation in California is extremely variable and that past and future variability must be addressed in any sustainable water management plan.

Thus, there are at least two principles that should be embodied in your guidelines or rules: One, that natural flows through the Delta should be restored to the maximum practical extent; and Two, that much more water should be extracted at periods of high flow and much less, or zero, water should be extracted at periods of low flows. In my Op-Ed I expanded on how these principles might be implemented. For now I just note that additional South of Delta storage would be required, either in groundwater banks or in surface storage facilities.

However, the NOP does not address such storage facilities but instead talks about completion of the CALFED Surface Storage Program which includes such dogs as the Temperance Flat Reservoir which, by DWR's own calculations, would generate an annual yield of only 140,000 acre-feet for a capital cost of \$3.36 billion – making it more costly than desalination of sea water. That program has provided employment for the staff of DWR and the Bureau and their consultants for many years but it has no place in the Delta Plan. Instead, the Delta Plan should be talking about possible decommissioning of reservoirs on the rivers upstream of the Delta and replacing them with South of Delta storage.

My second, much briefer, comment on the NOP has to do with the Flood Management and Levees Element, which is actually entitled “Reduce Risks to People, Property and State Interests”. This element is generally more complete and it includes both prioritization of investments and creation of a Delta-wide flood management and financing entity. However, it says nothing about the drafting of Delta-specific levee standards, which are sorely needed. I have prepared an outline of what I think might be appropriate standards for Delta levees and will submit them to the Council, or publish them in the Stockton Record, in due course. I would just note that one essential component of the Council’s policy on levees should be a requirement to restore native vegetation on the water side of every mile of the Delta levees. I believe that there are ways that this can be done without compromising the integrity of the levees, and that the Council should join with Congressman John Garamendi and others to push back on the Corps of Engineers who want to enforce an inappropriate and ill-advised blanket policy on levee vegetation in every state of the nation.

My third and final comment has to do with the need for an EIR. While I am not a lawyer, let alone a specialist in environmental law, I find the arguments made by the State and Federal Contractors Water Agency, which is led by lawyers, and others, to be persuasive on this matter - they argue that even a programmatic EIR is not required for you to adopt and enforce the Delta Plan . I understand that, as a State agency, you are likely obliged to follow the advice of the Attorney General’s Department on this matter, but I note that the Attorney General’s Department is not always right – witness the Paterno case! The reason that I raise this question is simply that you, your staff and consultants have limited time and resources to develop the Delta Plan, and it would appear that sooner or later you are going to have to devote more effort to studying alternatives for conveyance, ecosystem restoration, flood management and land use, and to developing a meaningful plan that integrates all of these elements, possibly at the expense of completing an EIR. And, if that is true, you had best address this issue sooner rather than later. An EIR for a plan that has no real content, is like a suit of armor with no-one inside it.

Thank you for your forbearance.

Referenced Op-Ed from Stockton Record is attached.

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New Delta thinking needed



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By **Robert Pyke**

January 08, 2011 12:01 AM

Recent comments by Ken Salazar, David Hayes and Diane Feinstein on the Bay Delta Conservation Plan are unnecessarily anchored to the past. The BDCP is not the last, best hope for the Delta or the only game in town. The BDCP not only has been bungled in execution, but its basic concept has always had a fatal flaw. No amount of tweaking the existing plan will overcome the fact that it will never satisfy the dual goals of the BDCP or the co-equal goals of the new Delta Stewardship Council.

The dual goals of the BDCP are enough recovery of the Delta ecosystem to allow the granting of incidental take permits in accordance with the state and federal endangered species acts, and the guarantee of reliable delivery of water for export at something approaching the full contract amounts that are part of the Central Valley project and the State Water Project agreements. However, the goal of even this minimal level of ecosystem recovery is in conflict with the goal of sustainable exports at a relatively high level, because it is widely agreed that of all the multiple stressors impacting the Delta, changes in the flow pattern are the most important. It is principally changes in the flow pattern that have transformed the Delta from an estuary into a weedy lake.

The basic problem with the BDCP is that the idea of moving the export intakes from the south Delta to the north Delta is a legacy idea that has been around since the 1920s and is simply the cheapest way to get Sacramento River water safely to the south.

The idea was conceived when the ecology of the Delta was not a big issue, and it was also planned that there would be diversions from the northern rivers that would in fact provide much of the export flows.

When Jerry Brown made a deal with the Sierra Club around 1980 to bar the planned diversions from the northern rivers in return for their support for a peripheral canal, he inadvertently caused the present stalemate. Without additional flow in the Sacramento River, moving the intakes from the south Delta to the north Delta simply changes the flow pattern in the Delta from cross flow to no flow.

And no flow is not better than cross flow. If the basic BDCP concept remains the same, there is no possibility of anything like a win-win solution. However, it may be that there is a win-win-win.

Any well-thought-out plan for getting out of this stalemate has to start by recognizing both the need for more natural flows through the Delta and that precipitation in California is extremely variable.

Thus, natural flows through the Delta should be restored to the maximum practical extent; and much more water should be extracted at periods of high flow and much less at periods of low flow.

Adherence to these principles, with appropriate pumping and temporary storage facilities, will allow simultaneous recovery of the Delta ecosystem and sustainable exports at close to contract levels.

A plan based on these principles would include four physical elements:

1. Restoration of floodplains on the Sacramento and San Joaquin rivers and their tributaries, which provides three significant benefits: stretching out floods to allow export pumping over a longer time; reducing peak flows as floods pass by the major urban areas and through the Delta; and restoring complexity and nutrients to the ecosystem.
2. New pumping facilities somewhere in the west Delta to allow flows to pass through the Delta in a natural way before surplus flows are extracted; these facilities might include some temporary storage.
3. One or more tunnels that can move the extracted water to a large temporary storage facility until the existing pumps can move it south; this storage facility would likely be adjacent to and might incorporate the existing Clifton Court Forebay.
4. Additional south-of-Delta storage, much of it likely as groundwater but also including new west-side surface storage.

So the third win is integration of enlightened flood management that has benefits to Northern California residents, with a plan to restore the Delta and restore reliable water supply to Central Valley farmers and Southern California urban areas.

In addition to getting the engineering right, a necessary ingredient for success is genuine outreach to and involvement of all stakeholders.

Because it has correct fundamentals, this is a plan that can succeed.

Robert Pyke is a consultant based in Lafayette with 40 years of experience in geotechnical, earthquake and water resources engineering in Australia and California.